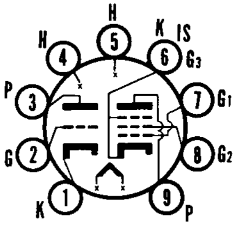


SYLVANIA TYPES 6JE8 8JE8 11JE8



9DX

MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Miniature Button, 9-Pin
Outline	6-3
Basing	9DX
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Operation	11JE8 Series	8JE8 Series	6JE8 Parallel	
Heater Voltage	10.9	8.2	6.3	Volts
Heater Current	450	600	780	Ma
Heater Warm-up Time	11	11	—	Seconds
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total D C and Peak	200	200	200	Volts
Heater Positive with Respect to Cathode				
D C	100	100	100	Volts
Total D C and Peak	200	200	200	Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section	
Grid to Plate	4.2 $\mu\mu f$
Input: g to (h+k)	2.4 $\mu\mu f$
Output: p to (h+k)	0.4 $\mu\mu f$
Pentode Section	
Grid No. 1 to Plate	0.1 $\mu\mu f$ Max.
Input: g1 to (h+k+g2+g3+I.S.)	10 $\mu\mu f$
Output: p to (h+k+g2+g3+I.S.)	3.6 $\mu\mu f$
Coupling	
Pentode Grid No. 1 to Triode Plate	.005 $\mu\mu f$ Max.
Triode Grid to Pentode Plate	.018 $\mu\mu f$ Max.
Pentode Plate to Triode Plate	.17 $\mu\mu f$ Max.

RATINGS (Design Maximum Values)

	Triode	Pentode
Plate Voltage	300	330 Volts Max.
Grid No. 2 Supply Voltage	—	330 Volts Max.
Grid No. 2 Voltage	See 6AM8 Rating Chart	
Plate Dissipation	1.0	5[1] Watts Max.
Grid No. 2 Dissipation	—	2[1] Watts Max.
Positive Grid No. 1 Voltage	0	0 Volt Max.
Grid No. 1 Circuit Resistance		
Fixed Bias	0.5	0.25 Megohm Max.
Self Bias	1.0	1.0 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

	Triode Section	Pentode Section
Plate Voltage	200	250 Volts
Grid No. 2 Voltage	—	170 Volts
Grid No. 1 Voltage	−2	0 Volts
Cathode Bias Resistor	—	82 Ohms
Plate Current	4.5	22 Ma
Grid No. 2 Current	—	4.0 Ma
Transconductance	4200	12,000 μmhos
Amplification Factor	70	—
Plate Resistance (approx.)	—	140,000 Ohms
Ec1 for Ib = 10 μa (approx.)	−5	−10 Volts

Instantaneous Plate Knee Characteristics
Eb = 60 V; Ec2 = 170 V; and Ec1 = 0 V
Ib = 48 Ma (approx.) and Ic2 = 12 Ma (approx.)

NOTE:

1. These are design maximum dissipation ratings for television video amplifier applications. The two watts maximum Grid No. 2 Dissipation should not occur simultaneously with the five watts maximum plate dissipation. The two watts maximum Grid No. 2 Dissipation may be operated simultaneously with a Plate Dissipation of 4.0 Watts or 1.5 Watts. Maximum Grid No. 2 Dissipation may be operated simultaneously with a Plate Dissipation of 5.0 Watts.

APPLICATION

The Sylvania Types 6JE8, 8JE8 and 11JE8 are sharp cutoff pentodes, high mu triodes featuring a controlled plate knee characteristic for the pentode section. The triode section may be used as a sync separator and voltage amplifier. The pentode section is designed to serve as a video amplifier.

Types 8JE8 and 11JE8 have controlled heater warm-up time for series string operation.